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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,617	10/30/2003	James A. Kahkoska	F-328	9962

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EXAMINER

PATEL, PARESH H

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/699,617

Applicant(s)

KAHKOSKA ET AL.

Examiner

Paresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 6-11, filed 09/05/2006, with respect to the rejection(s) of claim(s) 1-10 and 13-26 under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Houck (US Pat. 7127041).

Claim Objections

2. Claim 2 is objected to because of the following informalities: a synchronization portion and a data portion as claimed has no support in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites the limitation "said carrier signal" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Dependent claim 23 is also rejected.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the synchronization portion and a data portion of claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 8-10, 13, 18 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Houck (US 7127041).

Regarding claims 1, 10 and 13, Houck discloses a toner/probe system and method for locating a cable, comprising: a toner [50] to generate and apply a tone packet [signals of 50, particularly 50F using 50D] to a cable under test [wire]; and a probe (sensor) (detector)[68], as further claimed.

Regarding claims 8-9, Houck discloses a selector (song selector) for selecting an operation mode [using one or more of 50F, 50G and 50D], as further claimed.

Regarding claims 18 and 24, Houck discloses quanta ("wiremap operation" see specification) at line 62 of column 5.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-7, 14-17, 19-23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houck as applied to claims 1 and 13 above, and further in view of Ashlock et al. (US 4393491).

Regarding claim 2-3 and 14-15, as best understood by the Examiner, Houck discloses all the elements including plural portions (providing different testing modes) [portions for audio voice 1-48 or 49-96 or 97 to 144 or 145 to 192 using 50D] for phone lines and data lines, therefore discloses at least data portion. Houck is silent about tone packet comprising a synchronization portion. Rather, Houck discloses addition test signals using programmed microchip to enable wire-mapping of all individual contacts at lines 61 of column 5 to line 8 of column 6. At lines 9-26 of column 6, Houck suggests use of identification coding systems such as selective tone frequencies, time coded groups, Morse code or the like for multiple simultaneous cable tracing.

Ashlock et al. (hereinafter Ashlock) discloses a synchronization portion [signal portion of tone generator]. Ashlock also discloses a data portion [data portion of tone generator]. Apparatus of Ashlock utilizes a tone generator, which generates digital words describing an analog test signal, and a detector that detects and describes this test analog signal. Apparatus of Ashlock also uses a microprocessor and multiplexer for control and selection of a telephone line during testing. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use and modify Houck with synchronization portions as taught by Ashlock for testing the cable with all advantages that Ashlock has/have to offer.

Regarding claims 4-5 and 16, Houck discloses testing modes are selected from the group consisting of a cable isolate mode (for precise identification of toned cable, see specification) [using probe 68] and a cable locate mode [using probe 68].

Regarding claim 6, Houck discloses wire map mode at line 62 of column 5.

Regarding claim 17, Houck at lines 55-67 of column 5 discloses mode for location one or more pairs separately from other wire pairs, as further claimed.

Regarding claims 7 and 19, Houck discloses all the elements but silent about toner supplies a 455Khz carrier signal as part of toner packet. Rather, Houck discloses addition test signals using programmed microchip to enable wire-mapping of all individual contacts at lines 61 of column 5 to line 8 of column 6. At lines 9-26 of column 6, Houck suggests use of identification coding systems such as selective tone frequencies, time coded groups, Morse code or the like for multiple simultaneous cable tracing. Ashlock discloses a carrier signal for sampling e.g. use of 1.544 megabits. Therefore, it would have been a obvious matter of a design choice to a person having ordinary skill in the art at the time the invention was made to use such a frequency since it was known in the art that different carrier frequency is/are used in a cable for transmitting a voice or data or test signal(s).

Regarding claims 20-21, Houck discloses all the elements but silent about toner supplies carrier signal as part of toner packet. Rather, Houck discloses addition test signals using programmed microchip to enable wire-mapping of all individual contacts at lines 61 of column 5 to line 8 of column 6. At lines 9-26 of column 6, Houck suggests use of identification coding systems such as selective tone frequencies, time coded

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groups, Morse code or the like for multiple simultaneous cable tracing. Ashlock discloses a carrier signal for sampling etc. e.g. use of 1.544 megabits. Therefore, it would have been an obvious matter of a design choice to a person having ordinary skill in the art at the time the invention was made to use carrier frequency since it was known in the art that different carrier frequency is/are used in a cable for transmitting a voice or data or test signal(s).

Regarding claims 22-23 and 25-26, as best understood by the Examiner, Houck discloses all the elements but silent about carrier signal is turned on and off at an audio frequency (1Khz or 2Khz) rate. Rather, Houck discloses additional test signals with audio signals using programmed microchip to enable wire-mapping of all individual contacts at lines 61 of column 5 to line 8 of column 6. At lines 9-26 of column 6, Houck suggests use of identification coding systems such as selective tone frequencies, time coded groups, Morse code or the like for multiple simultaneous cable tracing. Therefore, it would have been an obvious matter of a design choice to a person having ordinary skill in the art at the time the invention was made to use such a frequency since it was known in the art that different audio frequency is/are used in a cable for transmitting a voice or data or test signal(s).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 571-272-1968. The examiner can normally be reached on 8:00 to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paresh Patel
Primary Examiner
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November 02, 2006